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KALEIDESCAPE, INC. 440 POTRERO AVE. SUNNYVALE, CA 94085-4117			EXAMINER DANG, HUNG Q	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/801,091	MALCOLM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	HUNG DANG	2484	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,14-35,37-41,45-53,57-61,63-65,67-72,74,75,103-119 and 128-135 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Disposition of Claims: Claims pending in the application are 1,2,4-8,14-35,37-41,45-53,57-61,63-65,67-72,74,75,103-119 and 128-135.

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 06/23/2011 have been fully considered but they are not persuasive.

On pages 29-33, Applicant argues that a combination of Kitani 869 with Kitani “would be improper, as Applicants contend that Kitani cannot be modified using the teachings of Kitani 869, as described in the rejection, without rendering the teachings of Kitani unsatisfactory for its intended purpose” because, according to Applicant, “the description of how the non-serial data is created (Kitani at [0083]), as well as the stated purpose of enabling safe distribution (e.g., [0010]), strongly suggests that the individual data sets are not individually playable, until they are re-serialized.”

In response, Examiner respectfully disagrees. First of all, Examiner submits that as described at least in [0084] and [0096], Kitani teaches that the non-serial video data and the serial video data are different only by the order of playback. In other words, the same units (scene data) are placed out of order in the non-serial video data to obscure the sequence. As such, the data sets are individually playable. Secondly, the proposed combination does not render the teachings of Kitani unsatisfactory for its intended purpose of enabling safe distribution as asserted because the DVD-ROMs are distributed in non-serial form and not after the serialization is performed. In other words, if Kitani 869 is combined with Kitani, the playback of the scene data during the serializing process, as proposed, would be performed after the DVD-ROMs had been safely distributed to the device at the playback end. Such a device would have been an

authorized device so that serialization could be executed to render the scene data sets in correct sequence and the playback of the non-serial scene data sets would be performed during such an authorized serialization.

Applicant's arguments with respect to other claims on pages 33-44 are moot in view of the discussion of the combination of Kitani and Kitani 869 above.

For those reasons, Applicant's arguments are not persuasive.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-2, 5-6, 19-32, 37-39, 45-48, 50-51, 59-61, 64, 69-74, 104-105, 112, 118-119, 128, and 133-135 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitani (US 2001/0019612 – hereinafter Kitani) and Kitani (US 2003/0231869 – hereinafter Kitani 869).**

Regarding claim 1, Kitani discloses a media reader having a read element capable of being communicatively coupled to a DVD compliant with the CSS specifications and containing scrambled digital content ([0095]; [0096]; [0111]); a storage element including an input disposed for receiving the scrambled digital content from the media reader ([0095]; [0097]), the storage element configured to non-evanescently store the scrambled digital content using a storage technique substantially different from the DVD without descrambling said scrambled digital content ([0095];

[0096]; [0097]); and a playback device coupled to the storage element ([0097]; [0098]), the device comprising an input disposed for receiving the scrambled digital content, said scrambled digital content at the input scrambled in accordance with a content scramble system (CSS) ([0096] – *scrambled data after read out from the DVD and stored on the hard disk as non-serial video data are read out for decryption*); a descrambler, for descrambling said scrambled digital content into unscrambled digital content ([0096] – *wherein the CPU 60 decrypts or descrambles the encrypted non-serial video data*). Kitani also discloses that the scrambled digital data are descrambled for the purpose of sorting the scene data in the correct sequence in accordance with preset procedures.

However, Kitani does not disclose the playback device comprising: a decoder, coupled to said descrambler, for decompressing said unscrambled digital content into a media stream; and an output, coupled to said decoder, configured to output said media stream.

Kitani 869 discloses a playback device comprising: a decoder, coupled to a descrambler, for decompressing said unscrambled digital content into a media stream (*Fig. 17*); and an output, coupled to said decoder, configured to output said media stream (*Fig. 17 – wherein encrypted or scrambled data from a disk drive are decrypted or descrambled and decoded by decoders to output decoded data as video and audio streams*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings in Kitani 869 into the PC end as taught in

Kitani in order to allow the operator of the PC play back the scene data during the serialization thus enhancing the interface of the sorting process.

Regarding claim 2, Kitani and Kitani 869 also discloses the output includes a signal following standards for protected signals specified by the CSS specification (*Kitani: [0096]. Kitani 869: [0059]; [0060]*).

Regarding claim 5, Kitani also discloses the playback device does not incorporate or implement the functionality of the CSS Authentication Algorithm, or incorporate the Authentication Key (*[0095]-[0098]*).

Regarding claim 6, Kitani also discloses the media reader does not incorporate or implement the functionalities of any of Disc Key Recovery Logic, Title Key Recovery Logic, or the Content Scrambling Algorithm, or incorporate the Master Key pair (*[0095]-[0098]*).

Regarding claim 19, Kitani also discloses a plurality of playback devices coupled to the storage element, wherein each of said plurality of playback devices is operable to output a different media stream (*Fig. 12; [0019]*).

Regarding claim 20, Kitani also discloses the output has a distinct controlling CPU from the storage element and has at least one of the properties in the set: being logically remote from the storage element, being physically remote from the storage element (*Fig. 12; [0095]-[0098]*).

Regarding claim 21, Kitani also discloses the scrambled media content being maintained in a protected form between the DVD and the media reader, between the

media reader and the storage element, when stored on the storage element, and between the storage element and the playback device ([0095]-[0098]).

Regarding claim 22, Kitani also discloses at least two elements in the set: the storage element, the playback device, the media reader have, pairwise, at least two of the properties in the set: being logically remote, being physically remote, and having more than one controlling CPUs (*Fig. 12; Fig. 7; [0095]-[0098]*).

Regarding claim 23, Kitani also discloses at least two elements in the set: the storage element, the playback device, the media reader are pairwise physically remote, and have separate controlling CPUs (*Fig. 7; Fig. 12; [0095]-[0098]*).

Regarding claim 24, Kitani discloses the media reader includes at least one DVD reader ([0095]).

Regarding claim 25, Kitani discloses the media reader includes a DVD drive ([0095]).

Regarding claim 26, Kitani discloses the storage element includes a magnetic disk drive ([0097]).

Regarding claim 27, Kitani discloses the scrambled digital content is maintained in a protected form for at least two cases in the set: between the DVD and the media reader; between the media reader and the storage element; when stored on the storage element; between the storage element and the playback device ([0095]-[0098]).

Regarding claim 28, Kitani discloses the scrambled media content being maintained in a protected form for at least three cases in the set: between the DVD and the media reader, between the media reader and the storage element, when stored on



the storage element, and between the storage element and the playback device ([0095]-[0098]).

Regarding claim 29, Kitani also discloses a protected form includes at least one of: an encrypted form of the scrambled digital content, an encrypted form of the scrambled digital content scrambled in accordance with CSS, a form of the scrambled digital content including digital rights information, a form of the scrambled digital content including digital rights information for which it is substantially difficult to remove that digital rights information ([0097]).

Regarding claim 30, Kitani discloses the protected form has at least one of the properties in the set: resistant to attempts to defeat copy protection afforded by the protected form, impossible to defeat using user tools, and difficult to defeat using professional tools ([0097]).

Regarding claim 31, Kitani discloses the protected form has at least two of the properties in the set: resistant to attempts to defeat copy protection afforded by the protected form, impossible to defeat using user tools, and difficult to defeat using professional tools ([0097]).

Regarding claim 32, Kitani discloses the protected form is resistant to attempts to defeat copy protection afforded by the protected form, is substantially impossible to defeat using user tools, and is substantially difficult to defeat using professional tools ([0097]).

Regarding claim 37, Kitani discloses the storage element has capacity to concurrently store scrambled digital content from plural DVDs ([0095]-[0097]).

Regarding claim 38, Kitani discloses operation of the system allows for a substantial time duration between a first time of storage of the scrambled digital content at the storage element, and a second time of output of any media stream derived therefrom ([0095]-[0098]).

Regarding claim 39, Kitani discloses the scrambled digital content can be transported a substantial distance after being read by the media reader and before being output by the playback device (*Fig. 12*).

Regarding claim 45, Kitani discloses a method of playing a DVD ([0095]), including steps of: reading the DVD including scrambled digital content representing at least one media stream scrambled in accordance with a content scramble system (CSS) ([0095]; [0096]); non-evanescently storing the scrambled digital content in protected form using a storage mechanism different from the DVD ([0096]), descrambling said scrambled digital content into unscrambled digital content ([0096]).

However, Kitani does not disclose descrambling said scrambled digital content into unscrambled digital content, immediately prior to decompressing said unscrambled digital content into said media stream; and playing back the media stream.

Kitani 869 discloses descrambling said scrambled digital content into unscrambled digital content, immediately prior to decompressing said unscrambled digital content into said media stream (*Fig. 17*); and playing back the media stream (*Fig. 17 – wherein encrypted or scrambled data from a disk drive are decrypted or descrambled and decoded by decoders to output decoded data as video and audio streams for playback*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings in Kitani 869 into the PC end as taught in Kitani in order to allow the operator of the PC play back the scene data during the serialization thus enhancing the interface of the sorting process.

Regarding claim 46, Kitani also discloses additional protection is used on the DVD, by the storage mechanism, or both ([0096]-[0097]).

Regarding claim 47, Kitani also discloses additional protection used on the DVD is different from the additional protection used by the storage mechanism ([0097]).

Regarding claim 48, Kitani also discloses the protected form is scrambled in accordance with CSS ([0097]).

Regarding claim 50, Kitani and Kitani 869 also discloses said descrambling and decompressing does not incorporate or implement the functionality of the CSS Authentication Algorithm, or incorporate the Authentication Key (Kitani: [0095]-[0098]. *Kitani 869: Fig. 17*).

Claim 51 is rejected for the same reason as discussed in claim 6 above.

Claim 59 is rejected for the same reason as discussed in claim 29 above.

Regarding claim 60, Kitani also discloses the protected form includes an encrypted form of the scrambled digital content scrambled in accordance with CSS ([0097]); and an additional layer of protection, by any technique, for any substantial portion of the steps of reading, storing, and playing back ([0097]).

Regarding claim 61, Kitani also discloses the step of reading occurs in a media reader having at least one DVD drive ([0095]).

Regarding claim 64, Kitani also discloses the method complies with the CSS license and the CSS procedural specification ([0095]-[0098]; [0111]).

Regarding claim 69, Kitani also discloses at least two of the following steps occur at logically remote locations: the step of reading, the step of non-evanescently storing, and the step of playing back (*Fig. 12*; [0095]-[0098]).

Regarding claim 70, Kitani also discloses at least two of the following steps occur at physically remote locations: the step of reading, the step of non-evanescently storing, and the step of playing back (*Fig. 12*; [0095]-[0098]).

Regarding claim 71, Kitani also discloses the step of playing back occurs at a plurality of playback devices, at least two of those playback devices being pairwise substantially physically remote from each other ([0098]; *Fig. 12*).

Claim 72 is rejected for the same reason as discussed in claim 38 above.

Claim 74 is rejected for the same reason as discussed in claim 39 above.

Regarding claim 104, Kitani et al. also disclose a plurality of outputs configured to simultaneously output said media stream (*Fig. 12*).

Regarding claim 105, Kitani discloses second output configured to output a second media stream (*Fig. 12*).

Regarding claim 112, Kitani discloses a media playback device ([0095]), comprising: a network connection for receiving scrambled digital content from a remote media storage device (*Fig. 12*), said scrambled digital content extracted from a DVD and scrambled in accordance with a content scramble system (CSS) ([0095]-[0098]; [0111]); a CSS descrambler, coupled to said network connection, for processing said

scrambled digital content into unscrambled digital content ([0096] - wherein the CPU 60 decrypts or descrambles the encrypted non-serial video data).

However, Kitani does not disclose a decoder, coupled to said CSS descrambler, for decompressing said unscrambled digital content into a media stream; and an output, for outputting said media stream to a presentation device, wherein said media stream comprises a signal in compliance with a standard for protected digital signals specified by the CSS procedural specifications.

Kitani 869 discloses a playback device comprising: a decoder, coupled to a descrambler, for decompressing said unscrambled digital content into a media stream (Fig. 17); and an output, for outputting said media stream to a presentation device, wherein said media stream comprises a signal in compliance with a standard for protected digital signals specified by the CSS procedural specifications (Fig. 17; [0059]; [0060] – wherein CSS encrypted or scrambled data from a disk drive are decrypted or descrambled and decoded by decoders to output decoded data as video and audio streams).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings in Kitani 869 into the PC end as taught in Kitani in order to allow the operator of the PC play back the scene data during the serialization thus enhancing the interface of the sorting process.

Regarding claim 118, Kitani 869 also discloses a second output for outputting said media stream to a second presentation device (Fig. 17 – audio stream).

Regarding claim 119, Kitani and Kitani 869 also discloses said network connection is also for receiving additional scrambled digital content from said remote media storage device (*Kitani: Fig. 12; [0095]-[0098]*), said CSS Descrambler is also for processing said additional scrambled digital content into a second media stream (*[0095]-[0098]*), and said media playback device further comprises: a second output for outputting said second media stream to a second presentation device wherein said second media stream comprises a signal in compliance with a standard for protected signals specified by the CSS specifications (*Kitani 869, Fig. 17 – audio stream*).

Regarding claim 128, Kitani et al. also disclose a system, comprising: a storage element for non-evanescently storing scrambled digital content extracted from a DVD (*[0095]*), stored using a technique substantially different from the DVD (*[0095]*), and protected by a content scramble system (CSS) (*[0096]*), the storage element having an output for sending the scrambled digital content (*Fig. 7; [0096] – wherein the scrambled digital content is sent for decrypting or descrambling*); and a playback device for producing a media stream derived from the scrambled digital content, and having an input for receiving the scrambled digital content from the storage element, said scrambled digital content at the input scrambled in accordance with a content scramble system (CSS) (*[0096] – wherein the scrambled digital content is sent for decrypting or descrambling*); a descrambler, for descrambling said scrambled digital content into unscrambled digital content (*[0096] – wherein the scrambled digital content is sent for decrypting or descrambling*).

However, Kitani does not disclose a decoder, coupled to said CSS descrambler, for decompressing said unscrambled digital content into a media stream; and an output, coupled to said decoder, configured to output said media stream.

Kitani 869 discloses a playback device comprising: a decoder, coupled to a descrambler, for decompressing said unscrambled digital content into a media stream (*Fig. 17*); and an output, coupled to said decoder, configured to output said media stream (*Fig. 17 – wherein encrypted or scrambled data from a disk drive are decrypted or descrambled and decoded by decoders to output decoded data as video and audio streams*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings in Kitani 869 into the PC end as taught in Kitani in order to allow the operator of the PC play back the scene data during the serialization thus enhancing the interface of the sorting process.

Claim 133 is rejected for the same reason as discussed in claim 38 above.

Regarding claim 134, Kitani discloses a method of playing back stored scrambled digital content ([0095]), comprising: accessing the stored scrambled digital content, the stored scrambled digital content having been extracted from a DVD compliant with the CSS specifications ([0095]; [0096]), stored using a technique substantially different from the DVD ([0096]); sending the stored scrambled digital content to a playback device ([0096]).

However, Kitani does not disclose producing a media stream derived from the stored scrambled digital content for playback, said producing comprising descrambling

said stored scrambled digital content into unscrambled digital content, immediately prior to decoding said unscrambled digital content into said media stream.

Kitani 869 discloses a method comprising: producing a media stream derived from the stored scrambled digital content for playback, said producing comprising descrambling said stored scrambled digital content into unscrambled digital content, immediately prior to decoding said unscrambled digital content into said media stream (*Fig. 17 – wherein encrypted or scrambled data from a disk drive are decrypted or descrambled and decoded by decoders to output decoded data as video and audio streams*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings in Kitani 869 into the PC end as taught in Kitani in order to allow the operator of the PC play back the scene data during the serialization thus enhancing the interface of the sorting process.

Claim 135 is rejected for the same reason as discussed in claim 38 above.

**Claims 4, 7-8, 33-35, 40-41, 49, 52-53, 63, 65, 67-68, 75, and 109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitani and Kitani 869 as applied to claims 1-2, 5-6, 19-32, 37-39, 45-48, 50-51, 59-61, 64, 69-74, 104-105, 112, 118-119, 128, and 133-135 above, and further in view of Wehrenberg (US 6,523,113 – hereinafter Wehrenberg).**

Regarding claim 4, see the teachings of Kitani and Kitani 869 as discussed in claim 1 above. However, Kitani and Kitani 869 do not disclose the playback device



implements the functionalities of Disc Key Recovery Logic, Title Key Recovery Logic, and the Content Scrambling Algorithm, and utilizes the Master Key pair.

Wehrenberg discloses a playback device implements the functionalities of Disc Key Recovery Logic, Title Key Recovery Logic, and the Content Scrambling Algorithm, and utilizes the Master Key pair (*column 1, lines 35-67*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate implementing the functionalities in the playback device disclosed by Wehrenberg into the apparatus disclosed by Kitani and Kitani 869 as a choice of implementation to perform authentication as required by CSS specifications.

Regarding claim 7, Wehrenberg also discloses the media reader incorporates and implements the functionality of the CSS Authentication Algorithm, and incorporates the Authentication Key (*column 1, lines 35-67*).

Regarding claim 8, Wehrenberg also disclose the media reader comprises an Authenticator for CSS Decryption Module (*column 1, lines 35-67*) and Kitani et al. also disclose the playback device comprises a CSS Descrambler ([0095]-[0098]).

Regarding claim 33, Wehrenberg also disclose the media reader includes a first authenticator (*column 1, lines 35-60*).

Regarding claim 34, Kitani also discloses the apparatus complies with the CSS specifications ([0095]-[0098]; [0111]).

Regarding claim 35, Wehrenberg also discloses the system is capable of having the first authenticator and a second authenticator authenticate each other before the media reader permits access to data (*column 1, lines 35-60*).

Regarding claim 40, Wehrenberg also discloses a system internal link operable to communicate compressed digital data representing media streams, wherein at least one of the following communicated using the system internal link is not substantially accessible to an external entity without an authorized cryptographically secure key: digital information representing at least one media stream, digital rights information, digital rights key information (*column 1, lines 35-60*).

Regarding claim 41, Wehrenberg et al. also disclose including coupling via the system internal link, at least two of the set, the media reader, the storage element, the playback device (*column 1, lines 35-60*).

Claim 49 is rejected for the same reason as discussed in claim 4 above.

Claim 52 is rejected for the same reason as discussed in claim 7 above.

Claim 53 is rejected for the same reason as discussed in claim 8 above.

Regarding claim 63, Wehrenberg also discloses the media reader includes a first authenticator (*column 1, lines 35-60*).

Claim 65 is rejected for the same reason as discussed in claim 35 above.

Regarding claim 67, Wehrenberg also discloses extracting keys that can be used to descramble CSS data, by an indirect manner from the key materials copied from DVD, using a key associated with the playback device, that key not being available from the DVD, in compliance with the CSS license and the CSS procedural specification (*column 1, lines 35-67*).

Regarding claim 68, Wehrenberg also discloses said reading comprises having the first authenticator and a second authenticator authenticate each other before the

media reader permits access to data, and said playing back comprises using CSS descrambling procedures (*column 1, lines 35-67*).

Claim 75 is rejected for the same reason as discussed in claim 40 above.

Regarding claim 109, Wehrenberg also discloses the apparatus is configured to extract keys that can be used to descramble CSS data, by an indirect manner from the key materials copied from DVD, using a key associated with the playback device, that key not being available from the DVD, in compliance with the CSS license and the CSS procedural specification (*column 1, lines 35-67*).

**Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitani and Kitani 869 as applied to claims 1-2, 5-6, 19-32, 37-39, 45-48, 50-51, 59-61, 64, 69-74, 104-105, 112, 118-119, 128, and 133-135 above, and further in view of Akiba et al. (US Patent 6,353,540 – hereinafter Akiba) and Ichinoi et al. (US 2001/0014946 – hereinafter Ichinoi).**

Regarding claim 14, see the teachings of Kitani and Kitani 869 as discussed in claim 1 above. However, Kitani and Kitani 869 do not disclose the main printed circuit board of the playback device has at least five layers, and signals containing unscrambled compressed audiovisual data or key material used in unscrambling digital content run wherever feasible on traces in interior layers of the board.

Akiba discloses a printed circuit board that has at least five layers (*column 9, lines 55-58; Fig. 41*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the printed circuit board disclosed by Akiba into the

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apparatus disclosed by Kitani and Kitani 869 in order to suppress noise, to reduce the board's space and cost of the apparatus (*Akiba, column 10, lines 27-38*).

However, the proposed combination of Kitani, Kitani 869, and Akiba does not disclose signals containing unscrambled compressed audiovisual data or key material used in unscrambling digital content run wherever feasible on traces in interior layers of the board.

Ichinoi discloses signals containing sensitive unscrambled data run wherever feasible on traces in interior layers of the board ([0061]-[0063]).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate running sensitive unscrambled data wherever feasible on traces in interior layers of the board as disclosed by Ichinoi into the apparatus disclosed by Kitani, Kitani 869, and Akiba to increase the protection of any unscrambled data that requires protection such as audiovisual data or key material used in unscrambling digital content.

Claim 15 is rejected for the same reason as discussed in claim 14 above in consideration of Akiba further disclosing an integrated circuit included an electronic apparatus, wherein said circuit is area-array packaged (*Fig. 25*) and surface-mounted (*Fig. 26*).

**Claims 16-17, 57, 113, and 129 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitani and Kitani 869 as applied to claims 1-2, 5-6, 19-32, 37-39, 45-48, 50-51, 59-61, 64, 69-74, 104-105, 112, 118-119, 128, and 133-135 above, and further in view of Chan et al. (US 2004/0001704 – hereinafter Chan).**

Regarding claim 16, see the teachings of Kitani and Kitani 869 as discussed in claim 1 above. However, Kitani and Kitani 869 do not disclose a user can only control the apparatus through either an on-screen display and associated touchpad and IR remote control protocols, or through a Web user interface.

Chan discloses a user can only control a multi-media system an on-screen display and associated touchpad and IR remote control protocols ([0019]; Fig. 1).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the controlling method disclosed by Chan into the apparatus disclosed by Kitani and Kitani 869 to enhance the user interface of the apparatus.

Regarding claim 17, Chan also discloses an output media stream analog audio data, and whereby said audio data output from a playback device is either in a compressed format or else in a linear PCM format in which the transmission information is sampled at no more than 48 kHz and no more than 16 bits ([0026]).

Claim 57 is rejected for the same reason as discussed in claim 17 above.

Claim 113 is rejected for the same reason as discussed in claim 17 above.

Claim 129 is rejected for the same reason as discussed in claim 17 above.

**Claims 18, 58, 114, and 130 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitani and Kitani 869 as applied to claims 1-2, 5-6, 19-32, 37-39, 45-48, 50-51, 59-61, 64, 69-74, 104-105, 112, 118-119, 128, and 133-135 above, and further in view of Hughes, Jr. et al. (US 2004/0033061 – hereinafter Hughes, Jr.).**

Regarding claim 18, see the teachings of Kitani and Kitani 869 as discussed in claim 1 above. Kitani 869 also discloses an output media stream comprises analog video data (*Fig. 17; [0157]*). However, Kitani and Kitani 869 do not disclose said analog video data output from the playback device does not have higher resolution than standard definition unless the digital content has itself that higher resolution.

Hughes, Jr. discloses video data output from a playback device does not have higher resolution than standard definition unless the digital content has itself that higher resolution (*[003]-[0006]; [0008]; [0022]*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the video data output disclosed by Hughes, Jr. into the apparatus disclosed by Kitani and Kitani 869 in order to make the apparatus compatible with both high definition and standard definition; thus enhancing user interface of the apparatus.

Claim 58 is rejected for the same reason as discussed in claim 18 above.

Claim 114 is rejected for the same reason as discussed in claim 18 above.

Claim 130 is rejected for the same reason as discussed in claim 18 above.

**Claim 103 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitani and Kitani 869 as applied to claims 1-2, 5-6, 19-32, 37-39, 45-48, 50-51, 59-61, 64, 69-74, 104-105, 112, 118-119, 128, and 133-135 above, and further in view of Shillo (US 2003/0110263 – hereinafter Shillo).**

Regarding claim 103, see the teachings of Kitani and Kitani 869 as discussed in claim 1 above. However, Kitani and Kitani 869 do not teach the storage element

includes an array of magnetic disk drives wherein data is stored redundantly in such a way that all data may be recovered after the failure of any one disk drive therein.

Shillo discloses the storage element includes an array of magnetic disk drives wherein data is stored redundantly in such a way that all data may be recovered after the failure of any one disk drive therein ([0054]).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the storage element including an array of magnetic disk drives disclosed by Shillo into the apparatus disclosed by Kitani and Kitani 869 for backup reason. The incorporated feature would make the apparatus more reliable.

**Claims 106-108, 110-111, 115-117, and 131-132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitani and Kitani 869 as applied to claims 1-2, 5-6, 19-32, 37-39, 45-48, 50-51, 59-61, 64, 69-74, 104-105, 112, 118-119, 128, and 133-135 above, and further in view of Porter et al. (US 2003/0226029 – hereinafter Porter).**

Regarding claim 106, see the teachings of Kitani and Kitani 869 as discussed in claim 1 above. However, Kitani and Kitani 869 do not disclose the media stream comprises analog audiovisual content in a protected form including analog copy protection.

Porter discloses a media stream comprises analog audiovisual content in a protected form including analog copy protection ([0018]).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the media stream comprising analog audiovisual content

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in a protected form including analog copy protection disclosed by Porter into the apparatus disclosed by Kitani and Kitani 869 to prevent the media stream from being illegally copied or reproduced.

Regarding claim 107, Porter also discloses the analog copy protection comprises Macrovision copy protection ([0018]).

Regarding claim 108, Porter also discloses the media stream is protected with a technique substantially similar to high-bandwidth digital content protection (HDCP) ([0018]).

Regarding claim 110, see the teachings of Kitani and Kitani 869 as discussed in claim 45 above. However, Kitani and Kitani 869 does not disclose the conversion comprises adding Macrovision copy protection.

Porter disclose a conversion comprises adding Macrovision copy protection ([0018]).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the conversion disclosed by Porter into the method disclosed by Kitani and Kitani 869 to prevent the media stream from being illegally copied or reproduced.

Regarding claim 111, Porter also discloses said conversion comprises applying a technique substantially similar to high-bandwidth digital content protection (HDCP) ([0018]).

Claim 115 is rejected for the same reason as discussed in claim 106 above.

Claim 116 is rejected for the same reason as discussed in claim 107 above.



Claim 117 is rejected for the same reason as discussed in claim 108 above.

Claim 131 is rejected for the same reason as discussed in claim 106 above.

Claim 132 is rejected for the same reason as discussed in claim 111 above.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/  
Examiner, Art Unit 2484

/Thai Tran/  
Supervisory Patent Examiner, Art Unit 2484